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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/674,256 | 12/22/2000 | Geoffrey R Morris | 282318-00008 | 5053 |

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EXAMINER

FORD, JOHN K

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 09/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,256

Applicant(s)

Morris

Examiner

FORD

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5
- 18) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Art Unit: 3743

The drawings are objected to because Figures 6 and 7 lack reference numerals 32 and 33 discussed on page 8, line 6. In Figure 8 reference numeral 38 located in the central passage should be changed to --33--. Slots 36 discussed on page 8, line 37 must be legended (reference numeral 36 must be added to Figure 8). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Claims 1-8 and 11-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by

Saperstein et al. (5,242,015) Figures 6-8.

In Figures 6-8 the subject matter claimed is clearly disclosed. For purposes of this rejection extrusion 100 of Saperstein is deemed to be a "panel". A "panel" is a flat, usually rectangular piece forming a part of a surface.

Art Unit: 3743

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erb '597 in view of Saperstein '015 and Canada '520.

Erb, submitted by applicant, shows a collector panel in Figure 5 which consists of a ^{pair} ~~pair~~ of internal sheets 68- and 70 and ~~a pair of internal sheets 68-70 and~~ a pair of external sheets 66 and 72 all coextruded with a series of ribs 82 and 84 spanning these four sheets (66, 68, 70 and 72). No end view showing the exact method of attaching heat transfer channels 76 (formed between sheets 68 and 70) to opposing headers is shown.

To have extended sheets 68 and 70 beyond the terminus of sheets 66 and 72 to permit coupling to an external header by conventional extrusion welding (taught by Canada '520) would have been obvious to one of ordinary skill in the art as taught by Saperstein '015. Such a extension would advantageously permit the extrusion welding process to be used to join the header to sheets 68 and 70 without interference from the other sheets and ribs. This is a very distinct advantage in a mass production environment. See the discussion in Canada '520.

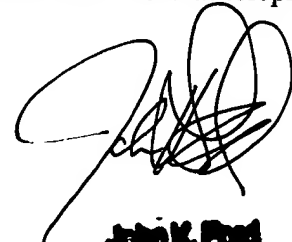
Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claim 3 above, and further in view of Johnson (4,060,072).

Art Unit: 3743

Johnson teaches a pressure relief valve 37 at the high point of the system. To have used such a pressure relief valve at the high point of any of the prior art heat exchange structures to prevent damage from over-pressure would have been obvious to one of ordinary skill.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to John Ford at telephone number 308-2636.



John K. Ford
Primary Examiner

J. FORD:th
September 2, 2002